Can the visualization of temporal sequence influence decision-making in a legal case?

Sample
Chico students, randomly assigned to 4 groups; balancing for [??]

Procedure

1. Measure SCT_1 (spatial construal of time) via [match task demands]
2. Present stimuli: audio/video recording of lawyer presenting legal argument, alongside a multimedia presentation. Ss are wearing headphones and can take notes during the presentation, but are not able to pause, rewind or fast forward.
3. Filler task: some sort of evidence identification/recognition task? (adds additional load to memory, relevant to decision, but not to event sequence)
4. Recall/Recognition Task: Ss recall/recognize details from the case
5. Reconstruction Task: Ss reconstruct the sequence of events
6. Decision Task: Ss make culpability decision and rate their confidence.

Variables

TYPE	NAME	MEASUREMENT	VALUES
IV	NEUTRAL SCT (spatial construal of time)	~~Visual card sort task~~ Listen to sequence – construct representation	X: R-L, L-R Y: U-D, D-U ~~Z: F-B, B-F~~
IV	CASE SCT	*Controlled via stimuli* *axis (horizontal or vertical)* *Direction (LR, RL, TB, BT)*	Inconsistent Contradictory Consistent None (lawyer only, no viz)
	FILLER TASK	Look of photos of evidence?	
DV	MENTAL MODEL	Free Recall + Recognition Reconstruction of event sequence *	(size) # of idea units (accuracy) # correct / total (accuracy) [sequence algorithm] (orientation) axis + direction
DV	*DECISION*	*Survey Question*	*Culpable/Not Culpable*
DV	*CONFIDENCE*	*Likert-Scale*	*1-7*

Hypotheses

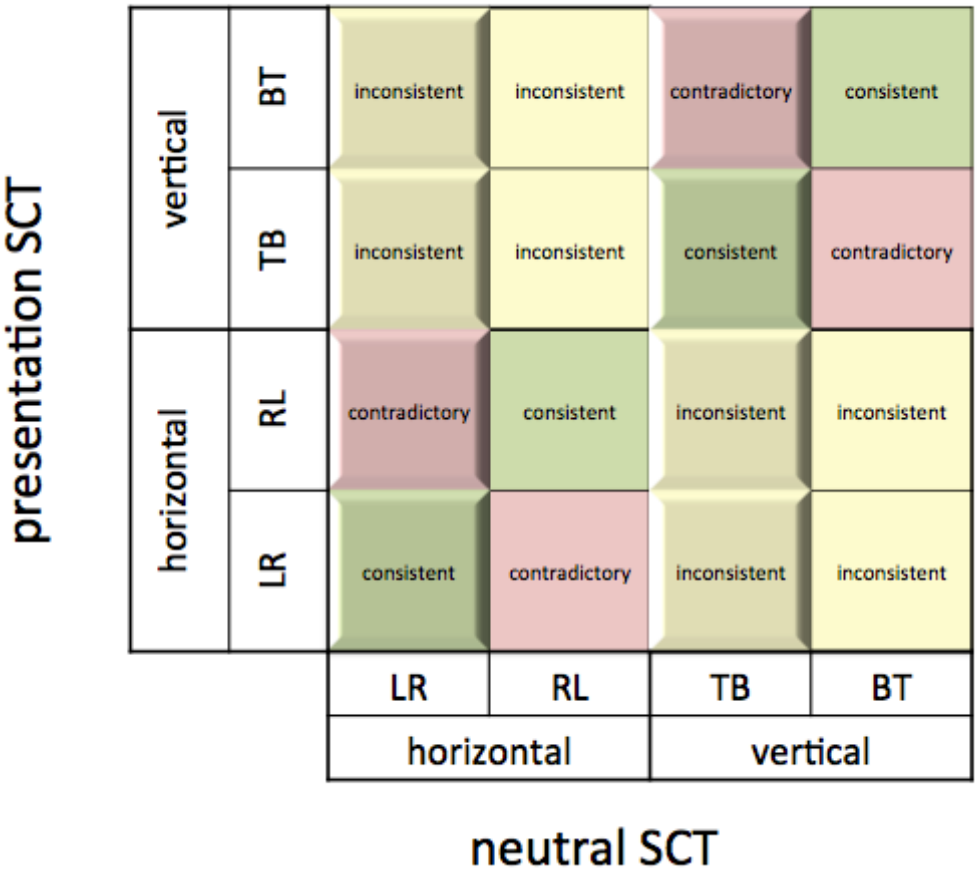
Inconsistent and contradictory representations of a sequence of events will result in confusion. This confusion will impair the development of a mental model for the sequence of events. Ss will have less confidence in their decision and be less likely to find the defendant culpable.

When compared with a neutral control group…
H1: inconsistent (A) and contradictory (B) representations of sequence will result in less accurate recall of case
H2: inconsistent (A) and contradictory (B) representations of sequence will result in a lower probability of culpable findings.
E1: After a brief delay, Ss choice of spatial mapping (SCT) will return to neutral condition.
H0: no significant differences in decision of culpability or recall of case will be found

DESIGN 1: 1-sided argument

2 factors (neutral X presentation)
(4 x 4) = 16 conditions or 2 X 4 = 8 conditions
+ no graphic (control)

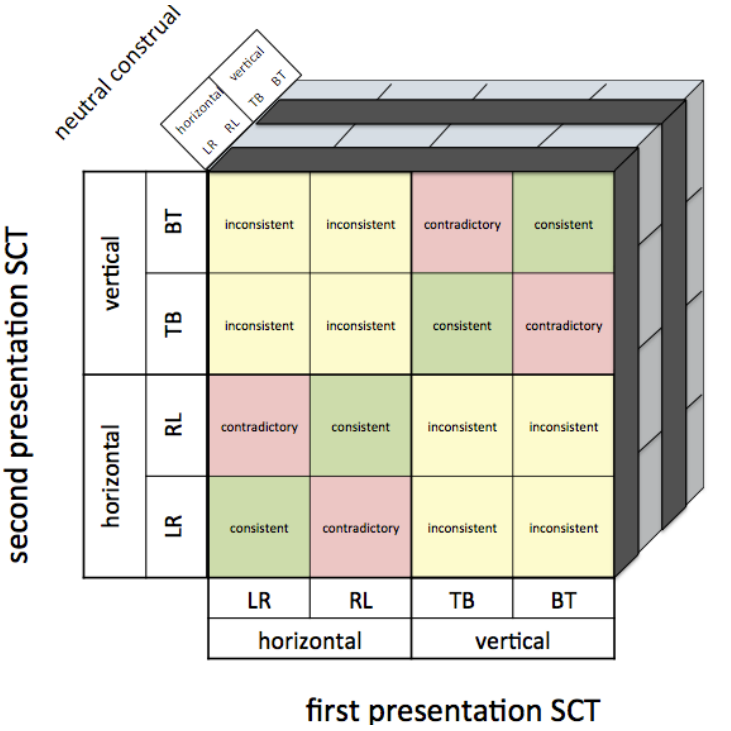
CV: neutral SCT
IV: presentation construal
DV: culpability decision
confidence
memory
reconstruction SCT

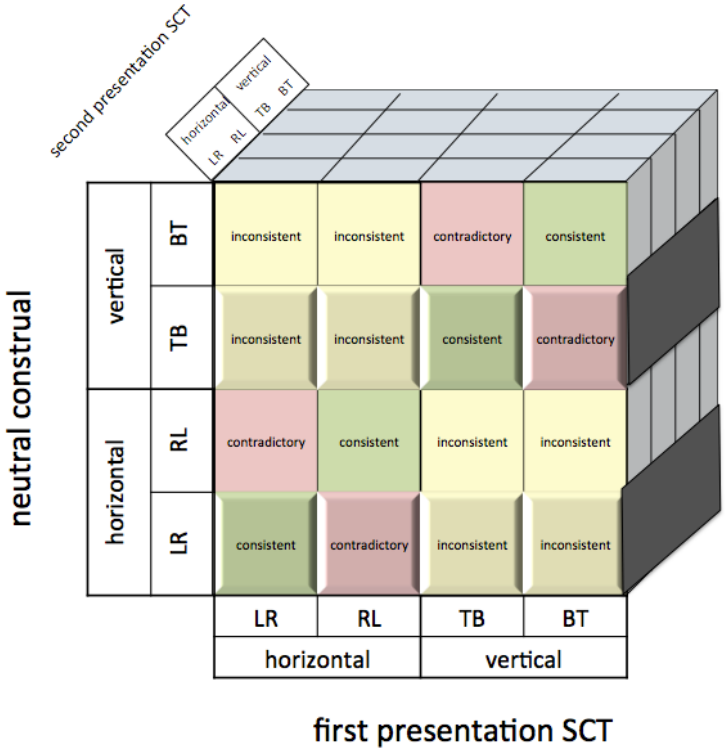


DESIGN 1: 2-sided argument

3 factor (neutral X first X second)
(4x 4 x 4) [or 2 x 4 x 4 ?)
+ no graphic (control)

CV: neutral SCT
IV: first SCT
second SCT
DV: culpability decision
confidence
memory
reconstruction SCT





Questions

1. Would you explore other factors?
    a) internal/external perspective?
    b) whole sequence (timeline) vs. sequential point in time?
    c) Static vs. animated
    d) Level of realism?
    e) Pictures vs. text in diagram?

2. Rather than consider consistency of the stimuli SCT compared to the individual's neutral SCT, would it be more interesting (and ecologically valid?) to present both sides of the case, and consider consistency in SCT between the presentations? (ie. prosecutor presents left -> right, then defense presents bottom -> top)

3. Would you select a criminal or civil case? Or would you not select a legal case at all, perhaps simplify to an ambiguous sequence of events and ask Ss to determine causality?

4. How would you measure SCT in a way that is most relevant to depiction of event sequence? *Does the visual card sort suggest usage of only the X axis? Is this sufficient for representation of event sequence?*

5. Would you limit the representations to 2D ? (exclude sagittal axis?)

6. Does putting the recall/recognition/reconstruction tasks *before* the decision task adequately simulate: time interval between hearing case and making decision + additional information from jury deliberation process?

7. What do you think the "confidence" measure is truly reflecting? Is this *judgment*? Is this an element of metacognition? Personality?

8. Any other factors you would control?